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Varietal Description of Somme Flax

Origin and breeding

Somme, tested as FP855, was bred at the Crop Development Centre at the University of Saskatchewan. The cross of FP705/NorLin (FP705 = Redwood 65/Foster) was made at the Agriculture Canada Research Station, Morden in 1977 and the F_2 seed was then sent to the Crop Development Centre in 1979. The breeding technique used was the pedigree method, with 130 F_5 lines used to produce breeder seed of the variety. Maturity, oil content, rust resistance, seed yield and oil quality were the criteria used in developing this variety. Breeder seed was first bulked in 1988.

Varietal characteristics

Plant characteristics

Flowers: medium in size; light to medium blue petals; blue anthers; colorless filaments; colorless style, usually with a hint of blue at base

Boll: medium in size; semi-dehiscent at maturity; ciliated false septa

Straw: medium tall, similar to NorLin; fair to good straw strength, similar to Dufferin

Maturity: medium early maturity; similar to NorLin

Disease reaction: Somme is immune to North American races of rust (*Melampsora lini*) and is moderately resistant to wilt (*Fusarium oxysporum*)

Seed characteristics

Seed size: medium, similar to NorLin, NorMan and Andro; 6.1 g/1000

Seed color: brown

Quality: medium oil content; similar to NorLin; good oil quality; slightly higher than all the checks

Performance

Somme is adapted to all flax growing areas of western Canada. Somme has only a medium oil content, similar to McGregor and NorLin, but below that of Vimy and NorMan. The lodging resistance of Somme is slightly below average. In each soil zone, Somme equals or exceeds NorLin, NorMan and Vimy in seed yield. The seed yield of Somme is also greater in the late seeded co-operative flax tests than NorLin, NorMan or Vimy and lower than that of Linott. Somme has an oil quality (iodine value) similar to that of Andro.

Maintenance of breeder seed

Crop Development Centre, University of Saskatchewan

Canadian distributor

SeCan Association

Recommended by

Prairie Registration Recommending Committee on Grain

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Table 1. Agronomic and quality performance of Somme and check varieties, flax co-operative test 1986-1988

Variety	Yield (kg/ha)	Days to Maturity	Height (cm)	1000 Seed wt (g)	Oil Content (%)	Iodine No.	Protein Content (%)
Black Soils							
Somme	1700	101.9	56	5.9	43.1	185	33.4
Andro	1550	102.3	54	6.0	42.8	185	33.8
Dufferin	1620	109.2	62	5.6	44.0	181	32.7
Linott	1520	98.8	52	5.8	42.9	183	33.6
McGregor	1750	108.0	61	5.4	43.1	182	32.5
Noralta	1560	101.0	60	5.4	41.6	182	32.6
NorLin	1670	101.0	54	6.0	43.0	181	32.9
NorMan	1680	104.5	56	5.9	44.0	178	33.3
Vimy	1600	102.3	56	6.4	44.1	184	32.6
No. of tests	16	9	15	17	17	17	12
Brown Soils							
Somme	1890	108.4	50	6.2	43.7	188	31.8
Andro	1580	109.1	48	6.0	43.2	187	32.5
Dufferin	1750	110.3	53	5.8	45.5	183	31.2
Linott	1560	109.3	47	6.0	43.4	185	32.4
McGregor	1860	110.9	52	5.6	44.3	184	32.0
Noralta	1710	108.1	52	5.5	42.2	185	31.7
NorLin	1830	109.1	49	6.1	43.6	184	31.9
NorMan	1830	109.2	48	5.9	45.1	180	31.8
Vimy	1830	109.8	50	6.8	45.2	186	32.0
No. of tests	15	7	13	16	16	16	7
Black & Grey Soils							
Somme	2290	119.2	61	6.3	44.1	193	32.2
Andro	2210	120.2	61	6.2	43.7	192	32.5
Dufferin	2190	122.0	63	6.4	45.5	190	30.8
Linott	2010	118.4	58	6.0	43.3	189	30.5
McGregor	2330	122.6	61	5.9	44.9	190	31.2
Noralta	2180	115.8	62	5.8	43.1	190	30.5
NorLin	2280	119.1	61	6.4	44.1	190	31.4
NorMan	2210	119.6	59	6.5	45.2	186	31.4
Vimy	1870	120.5	61	6.6	44.8	191	31.5
No. of tests	9	5	8	10	10	10	3

Black Soil: Morden, Portage la Prairie, Brandon, Glenlea, Winnipeg, Indian Head, Arcola, Melfort
Brown Soil: Regina, Swift Current, Saskatoon, Elrose, Scott, Lethbridge, Outlook
Black and Grey Soil: Lacombe, Edmonton, Beaverlodge, Ft. Vermilion, Olds

Table 2. Agronomic Performance of Somme and check varieties in the late-seeded flax co-operative test*, 1986-1988

Variety	Yield (kg/ha)	Yield as a % of Linott	Days to Mature
Somme	1350	94	101
Andro	1250	87	101
Dufferin	970	68	112
Linott	1430	100	99
McGregor	1050	73	109
Noralta	970	68	106
NorLin	1300	91	100
NorMan	1090	76	105
Vimy	1300	91	103
No. of tests	7	7	7

*Indian Head, Portage la Prairie, Morden and Saskatoon

Table 3. Fusarium Wilt Ratings and Lodging Scores of Somme and check varieties, flax co-operative trials, 1986-1988

Variety	Wilt* (1-9)	Lodging** (1-9)
Somme	4.2	2.8
Andro	5.2	1.8
Dufferin	3.6	2.5
Linott	4.5	2.5
McGregor	3.3	1.8
Noralta	4.8	2.4
NorLin	4.5	2.1
NorMan	3.8	2.1
Vimy	4.1	3.9
No. of tests	6	9

*Readings on plant vigor on a 1-9 scale (1 = most vigorous; 9 = least). tested at Morden and Indian Head

**Readings on a 1-9 scale (1 = best; 9 = poorest)

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